

# **Period 3 Vertex predictions & Event Location**

# New Period 3 Events

- There are 38 “good” events, 11 events with a “?” and 3 events send to Vittorio.
- From the 38 “good” events :
  - 30 events have errors obtained from MINUIT and have been send to Japan.
  - 8 events do not have errors yet, due mainly to small number of SF lines (1-2) and 3D SF tracks (0-1)
- From the 11 “ ? ” events :
  - 8 events have errors in their predictions
  - 3 do not have errors , for the same reasons

# New Period 3 Events to Japan

- 30 EVENTS have been send to Japan.  
**scanning volume = 3\*Error** for u, v and z.
- If the scanning volume is **greater** than **3 cm in z** and **1 cm in u and v** then the event is characterized as **“suspended”**
- From the 30 events we send we got a reply form the Japanese for the 22. For the remaining 8 we calculated the scanning volume ourselves.
- **9 events** out of **30 send** are characterized as **suspended**.

# New Period 3 Events to Japan (table)

RUN	EVENT	jud	UPOS	VPOS	U size	V size	Zsize
3137	13156	sus	-164440.0	190520.0	11700.0	8100.0	28500.0
3137	13373	sus	-203920.0	89360.0	9600.0	8100.0	39300.0
3137	17591	sus	-218400.0	-106870.0	6000.0	5100.0	67500.0
3138	02287	o	-192110.0	57570.0	6600.0	6900.0	9300.0
3138	07918	sus	25920.0	13810.0	7500.0	7200.0	42300.0
3139	01834	o	-166130.0	-50580.0	6300.0	8700.0	12300.0
3139	28913	o	153730.0	170620.0	6300.0	6600.0	20400.0
3140	01642	o	147440.0	-132220.0	6600.0	6900.0	8100.0
3142	02026	o	-216910.0	126480.0	6600.0	6900.0	11700.0
3142	04221	o	59750.0	-4730.0	8400.0	9000.0	18300.0
3142	06667	sus	128210.0	39060.0	6900.0	9600.0	33300.0
3143	01515	o	201750.0	-159670.0	7800.0	7200.0	18600.0
3144	05155	o	58820.0	107870.0	6600.0	5100.0	13800.0
3145	19765	o	-15350.0	119140.0	5100.0	5400.0	6600.0
3147	02114	o	-180040.0	134420.0	7200.0	6900.0	18000.0
3171	22894	sus	83970.0	-203460.0	15600.0	9300.0	31500.0
3177	19589	o	-143660.0	95110.0	6300.0	6000.0	23400.0
3182	03667	o	-76310.0	-109060.0	6900.0	6000.0	18600.0
3185	11192	o	102080.0	-92630.0	8400.0	7500.0	18000.0
3185	16281	sus	126240.0	-166340.0	6000.0	7200.0	33000.0
3188	24400	o!!	-187310.0	34200.0	5700.0	6900.0	8100.0
3202	24917	sus	53950.0	-221190.0	6000.0	11100.0	17700.0

HAVE NOT RECIEVED ANSWER YET FROM JAPAN

(IN METERS)

RUN	EVENT	ZPOS	ZSIZE	UPOS	USIZE	VPOS	VSIZE
3138	19314	0.33195	0.01725	0.11036	0.00270	-0.23633	0.00315
3145	14615	0.04081	0.01230	-0.00596	0.00315	-0.09729	0.00420
3175	1209	0.90679	0.01575	-0.23264	0.00360	0.05653	0.00555
3188	6415	0.61536	0.04569	-0.21400	0.01080	-0.14638	0.00414
3188	26952	0.60520	0.00690	0.22632	0.00225	0.01053	0.00270
3192	28415	0.00596	0.02970	0.23125	0.00270	0.17610	0.00240
3193	22870	0.89863	0.01605	0.13625	0.00240	-0.09857	0.00255
3193	26805	0.57301	0.01320	-0.01890	0.00300	0.22729	0.00270

# Event Location

- We have started looking at the existing methods (3) for event location :
  - **ROOT** -> Got the source code from fnbbbx, compiled it, run it and made a few macros to start understanding what it can do.
  - **ECVTXA** -> Got much information from Bruce and help from Lauren and Gina (set up a directory in fnbbbx where I can run and test things)
  - **Bruce's code** -> Got the source code and details from Bruce and test it also.
- We are at the phase of learning what has been done so far and exercising on already located events...

## On going work

- Obtain errors for the 11 / 49 period 3 events so as to be able to send them to Japan also.
- Learning as much as possible about event location and exercising on already located events .